

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number
WO 2005/094545 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/US2005/009931

(22) International Filing Date: 24 March 2005 (24.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/556,818 24 March 2004 (24.03.2004) US
60/661,452 13 March 2005 (13.03.2005) US

(71) Applicant (for all designated States except US): U.S. BORAX INC. [US/US]; 26877 Tourney Road, Valencia, CA 91355-1847 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): SCHUBERT, David, M. [US/US]; 26877 Tourney Road, Valencia, CA 91355-1847 (US).

(74) Agent: GANDERUP, Kurt, R.; 26877 Tourney Road, Valencia, CA 91355-1847 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AF, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR INHIBITING THE CRYSTALLIZATION OF BORIC ACID

(57) Abstract: A method for inhibiting the crystallization of boric acid is provided. Boric acid is dissolved in water and a vitrifying agent, such as an amino alcohol or amino acid, to form an aqueous mixture which is then dried to form a vitreous boric acid-containing residue. This mixture, when applied to a surface and allowed to dry on the surface, forms a vitreous boric acid-containing coating which is readily adherent to the surface, or if allowed to penetrate into a porous substrate, deposits a vitreous boric acid-containing residue within the substrate upon drying. The vitreous boric acid-containing residue provides beneficial properties, including for example improved fire retardancy and biocidal protection, to a variety of materials such as cotton batting, cellulose, and wood and paper products and gypsum wallboard.

WO 2005/094545 A2